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44. (Amended) The submerged intake filter assembly of claim 37, further comprising a second secondary flow modifier pipe positioned in the annular space and extending into the interior of the cylindrical screen, the second secondary flow modifier pipe extending into the screen interior a different distance from the secondary flow modifier pipe.

## REMARKS

This is intended as a full and complete response to the Office Action dated January 13, 2003, having a shortened statutory period for response set to expire on April 13, 2003. Please reconsider the claims pending in the application for reasons discussed below.

## CLAIM REJECTIONS

### A. 35 USC 102(b); Claims 1, 8-10, 15, 18, 36, 41, 42 and 45

#### *Maxson*

#### 1. Claims 1 and 8-10

Claims 1 and 8-10 stand rejected as being unpatentable over United States Patent No. 6,051,131, issued April 18, 2000 to *Maxson* (hereinafter referred to as "*Maxson*"). For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

*Maxson* teaches a screen assembly having a primary flow modifier or outlet pipe, a first end of which extends into the interior of a screen. A plurality of secondary flow modifier pipes having decreasing diameters extend in a concentric fashion from inside the first end of the primary flow modifier pipe. That is, the secondary flow modifier pipes are positioned inside the primary flow modifier pipe and thus progressively decrease in diameter. *Maxson* does not teach, show or suggest a secondary flow modifier pipe positioned in an annular space between the primary flow modifier pipe and the screen (i.e. positioned outside of the primary flow modifier pipe and having a larger diameter), as recited by claim 1.

Thus the Applicant submits that claim 1, and claims 8-10 that depend therefrom, are patentable over the cited reference. Accordingly, the applicant respectfully requests that the rejection to these claims be withdrawn.

## **2. Claims 15 and 18**

Claims 15 and 18 stand rejected as being unpatentable over *Maxson*. For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

*Maxson* has been discussed above. *Maxson* does not teach, show or suggest a secondary flow modifier pipe positioned in an annular space between the primary flow modifier pipe and a first end of a screen (i.e. positioned outside of the primary flow modifier pipe), as recited by claim 15.

Thus the Applicant submits that claim 15, and claim 18 that depends therefrom, are patentable over the cited reference. Accordingly, the applicant respectfully requests that the rejection to these claims be withdrawn.

## **3. Claims 36, 41, 42 and 45**

Claims 36, 41, 42 and 45 stand rejected as being unpatentable over *Maxson*. For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

*Maxson* has been discussed above. *Maxson* does not teach, show or suggest a secondary flow modifier pipe having an interior completely positioned in an annular space between the primary flow modifier pipe and a first end of a screen (i.e., positioned outside of the primary flow modifier pipe), as recited by claim 36.

Thus the Applicant submits that claim 36, and claims 41, 42 and 45 that depend therefrom, are patentable over the cited reference. Accordingly, the applicant respectfully requests that the rejection to these claims be withdrawn.

**B. 35 USC 102(b); Claims 1, 6, 15, 16, 36 and 39**  
***McFarlin 2,572,173***

**1. Claims 1 and 6**

Claims 1 and 6 stand rejected as being unpatentable over United States Patent No. 2,572,173, issued October 23, 1951 to *McFarlin* (hereinafter referred to as "*McFarlin '173*"). For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

*McFarlin '173* teaches a generally cylindrical strainer having a cylindrical neck which functions as a connection device for coupling the strainer to a pump. The pump draws water out from the strainer. *McFarlin '173* does not teach, show or suggest a secondary flow modifier pipe that positioned in the annular space between a primary flow modifier pipe and a cylindrical screen, as recited by claim 1.

Thus the Applicant submits that claim 1, and claim 6 that depends therefrom, are patentable over the cited reference. Accordingly, the applicant respectfully requests that the rejection to these claims be withdrawn.

**2. Claims 15 and 16**

Claims 15 and 16 stand rejected as being unpatentable over *McFarlin '173*. For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

*McFarlin '173* has been discussed above. *McFarlin '173* does not teach, show or suggest a secondary flow modifier pipe that positioned in the annular space between a primary flow modifier pipe and a cylindrical screen, as recited by claim 15.

Thus the Applicant submits that claim 15, and claim 16 that depends therefrom, are patentable over the cited reference. Accordingly, the applicant respectfully requests that the rejection to these claims be withdrawn.

**3. Claims 36 and 39**

Claims 36 and 39 stand rejected as being unpatentable over *McFarlin '173*. For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

*McFarlin '173* has been discussed above. *McFarlin '173* does not teach, show or suggest primary and secondary flow modifier pipes that extend into the interior of a cylindrical screen, as recited by claim 36. Nor does *McFarlin '173* teach, show or suggest a secondary flow modifier pipe having an interior completely positioned in an annular space between a primary flow modifier and a first end of a screen (i.e., a secondary flow modifier pipe positioned completely outside a primary flow modifier pipe, so as not to be concentric), as also recited by claim 36.

Thus the Applicant submits that claim 36, and claim 39 that depends therefrom, are patentable over the cited reference. Accordingly, the applicant respectfully requests that the rejection to these claims be withdrawn.

**C. 35 USC 102(b); Claims 1, 6, 15, 16, 36 and 39**

***McFarlin 3,037,636***

**1. Claims 1 and 6**

Claims 1 and 6 stand rejected as being unpatentable over United States Patent No. 3,037,636, issued June 5, 1962 to *McFarlin* (hereinafter referred to as "*McFarlin '636*"). For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

*McFarlin '636* teaches a generally cylindrical strainer having a cylindrical neck which functions as a connection device for coupling the strainer to a second device and connected to a pump. The pump draws water out from the strainer. A baffle is affixed to the top of the strainer and is concentric with the neck. *McFarlin '636* does not teach, show or suggest a secondary flow modifier pipe positioned in the annular space between a primary flow modifier pipe and a cylindrical screen, as recited by claim 1.

Thus the Applicant submits that claim 1, and claim 6 that depends therefrom, are patentable over the cited reference. Accordingly, the applicant respectfully requests that the rejection to these claims be withdrawn.

## 2. Claims 15 and 16

Claims 15 and 16 stand rejected as being unpatentable over *McFarlin '636*. For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

*McFarlin '636* has been discussed above. *McFarlin '636* does not teach, show or suggest a secondary flow modifier pipe positioned in the annular space between a primary flow modifier pipe and a cylindrical screen, as recited by claim 15.

Thus the Applicant submits that claim 15, and claim 16 that depends therefrom, are patentable over the cited reference. Accordingly, the applicant respectfully requests that the rejection to these claims be withdrawn.

## 3. Claims 36 and 39

Claims 36 and 39 stand rejected as being unpatentable over *McFarlin '636*. For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

*McFarlin '636* has been discussed above. *McFarlin '636* does not teach, show or suggest primary and secondary flow modifier pipes that extend into the interior of a cylindrical screen, as recited by claim 36. Nor does *McFarlin '636* teach, show or suggest a secondary flow modifier pipe having an interior completely positioned in an annular space between a primary flow modifier and a first end of a pipe (i.e., a secondary flow modifier positioned completely outside a primary flow modifier, so as not to be concentric), as also recited by claim 36.

Thus the Applicant submits that claim 36, and claim 39 that depends therefrom, are patentable over the cited reference. Accordingly, the Applicant respectfully requests that the rejection to these claims be withdrawn.

**D. 35 USC 102(b); Claims 22 and 29**

***Stiles***

**1. Claim 22**

Claim 22 stands rejected as being unpatentable over United States Patent No. 415,927, issued November 26, 1889 to *Stiles* (hereinafter referred to as "*Stiles*"). In response, the Applicant has amended claim 22 to more clearly recite aspects of the invention.

*Stiles* teaches a first perforated cylinder having a second perforated cylinder positioned concentrically therein, with several layers of filter material positioned therebetween. One inlet tube for pumping water and one outlet tube for pumping air pass through the second cylinder. *Stiles* does not teach, show or suggest at least one secondary inlet pipe positioned within the cylindrical screen, as recited by amended claim 22.

Thus, the Applicant submits that claim 22 is patentable over the cited reference. Accordingly, the Applicant respectfully requests that the rejection to this claim be withdrawn.

**2. Claim 29**

Claim 29 stands rejected as being unpatentable over *Stiles*. In light of the Applicant's cancellation of claim 29, the Applicant respectfully submits that this rejection is moot.

**E. 35 USC 103(a); Claims 7 and 40**

***McFarlin '173 and '636 in view of Maxson***

**1. Claim 7**

Claim 7 stands rejected as being unpatentable over *McFarlin '173 and '636* as applied to claim 6 and further in view of *Maxson*. For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

The burden for establishing a prima facie case of obviousness falls on the Examiner. *See*, MPEP §2142. A basic requirement of establishing a prima facie case of obviousness is that the combination of prior art references must teach or suggest all the claim limitations and that there must be a motivation to combine the references. *See*, MPEP §2143.

The combination of *McFarlin* '173 and '636 with *Maxson* fails to teach, show or suggest all of the limitations of the claimed invention. As discussed above, *McFarlin* '173 and '636 teach a strainer having a single baffle welded to one end and a neck positioned within the baffle for coupling the strainer to a second piece of equipment, such as a pump. *McFarlin* '173 and '636 do not teach, show or suggest a second secondary flow modifier pipe (i.e., third flow modifier pipe overall) positioned in an annular space between a primary flow modifier pipe and a screen and extending into the screen a different distance from the (first) secondary flow modifier pipe, as recited by claim 7. Furthermore, *Maxson* teaches multiple secondary flow modifier pipes positioned concentrically inside a primary flow modifier pipe that progressively decrease in diameter. The combination of *McFarlin* '173 and '636 with *Maxson* therefore does not teach, show or suggest multiple secondary flow modifier pipes positioned in an annular space between a primary flow modifier pipe and a screen (i.e. outside the primary flow modifier pipe and progressively increasing in diameter), as recited by claim 7.

Thus the Applicant submits that claim 7 is patentable over the cited references. Accordingly, the applicant respectfully requests that the rejection to this claim be withdrawn.

## 2. Claim 40

Claim 40 stands rejected as being unpatentable over *McFarlin* '173 and '636 as applied to claim 39 and further in view of *Maxson*. For the reasons discussed below, the Applicant respectfully disagrees with this conclusion.

The combination of *McFarlin* '173 and '636 with *Maxson* fails to teach, show or suggest all of the limitations of the claimed invention. *McFarlin* '173 and '636, *Maxson*, and the combination of the three references have been discussed above. The

combination of *McFarlin* '173 and '636 with *Maxson* does not teach, show or suggest multiple secondary flow modifier pipes positioned in an annular space between a primary flow modifier pipe and a screen (i.e. outside the primary flow modifier pipe and progressively increasing in diameter), as recited by claim 40.

Thus the Applicant submits that claim 40 is patentable over the cited references. Accordingly, the applicant respectfully requests that the rejection to this claim be withdrawn.

## **CLAIM OBJECTIONS**

### **A. Claims 2, 3, 17, 19 and 37**

Claims 2, 3, 17, 19 and 37 are objected to as being dependent upon a rejected base claim. Specifically, claims 2 and 3 depend from rejected base claim 1, claims 17 and 19 depend from rejected base claim 15, and claim 37 depends from rejected base claim 36. For the reasons discussed herein, the Applicant respectfully submits that claims 1, 15 and 36 are in patentable form and thus requests that the objection to claims 2, 3, 17, 19 and 37 that depend therefrom be withdrawn.

### **B. Claims 4, 5, 11, 23-28, 38 and 46**

Claims 4, 5, 11, 23-28, 38 and 46 are objected to as being dependent upon a rejected base claim. Specifically, claims 4, 5 and 11 depend from rejected base claim 1, claims 23-28 depend from rejected base claim 22, and claims 38 and 46 depend from rejected base claim 36. For the reasons discussed herein, the Applicant respectfully disagrees with the Examiner's grounds for rejection of claims 1, 22 and 36 and thus requests that the objection to claims 4, 5, 11, 23-28, 38 and 46 that depend therefrom be withdrawn.



## IN THE DRAWINGS

The drawings are objected to under 37 CFR 1.83(a). Specifically, the Examiner claims that eccentric primary flow modifiers with angled secondary pipes or secondary pipes extending different distances, as recited in claims 5, 24-25 and 31-35, are not shown in the Figures. In response, the Applicant has submitted Figure 8 to further clarify the embodiments covered in claims 5, 24-25 and 31-35. The Applicant further affirms that the embodiment illustrated in Figure 8 is adequately supported by the disclosure (see page 7, lines 9-14). Thus, the Applicant respectfully submits that no new matter has been entered.

## IN THE SPECIFICATION

Please amend the paragraph beginning on page 6, line 26 and ending on page 7, line 14 as follows to reflect the submission of Figure 8 discussed above. The Applicant respectfully submits that no new matter has been entered into the specification as a result of this amendment:

"The submerged intake filter assembly 110 further includes a plurality of secondary flow modifier pipes 128 positioned in the annular space 126. According to a preferred embodiment, at least one of the plurality of secondary flow modifier pipes 128 extends into the interior 121 more than 50% of the distance between the first end 116 and the second end 117 of the cylindrical screen 112. The secondary flow modifier pipes 128 each have a diameter that is less than the diameter of the primary flow modifier pipe 122. Furthermore, each of the plurality of secondary flow modifier pipes 128 has a secondary longitudinal axis 124 that is at an angle to the screen longitudinal axis 114. The plurality of secondary flow modifier pipes 128 form a circle with a diameter that is greater than the diameter of the primary flow modifier pipe 122, but less than that of the cylindrical screen 112. Each of the plurality of secondary flow modifier pipes 128 is bevel cut at an interior end 130 substantially to an angle that makes the interior end 130 parallel to the cylindrical screen 112. Each of the plurality of secondary flow modifier pipes 128 is bevel cut at a length that makes the interior end 130 of each pipes 128 equidistant from the cylindrical screen 112. However, it will be readily

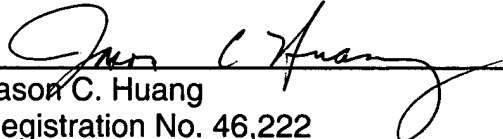
apparent to those of ordinary skill in the art that the diameter of the primary and secondary flow modifier pipes, the angles between the screen longitudinal axis 114 and the plurality of secondary flow modifier pipes 128, and the distances they extend into the interior 121 may be varied. Moreover, given the discussion above with respect to Figs. 1 and 2, the center of the plurality of secondary flow modifier pipes 128 may be offset from the screen longitudinal axis 114 (as may be the center of the primary flow modifier pipe 122, as illustrated in Fig. 8), and the plurality of secondary flow modifier pipes 128 may be arranged in a different shape (other than a circle) on the second end plate 119."

### CONCLUSION

In conclusion, the references cited by the Examiner, neither alone nor in combination, teach, show, or suggest the method or apparatus of the present invention. Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

The prior art made of record is noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the office action. Therefore, it is believed that a detailed discussion of the secondary references is not deemed necessary for a full and complete response to this office action. Accordingly, allowance of the claims is respectfully requested.

Respectfully submitted,

  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

22. (Amended) A submerged intake filter assembly, comprising:

a round cylindrical screen having a first end, a second end, and an inside surface defining an interior between the first end and the second end;

a round inlet pipe having an outer surface and an open end providing a passageway from outside the inlet pipe to inside the inlet pipe, the inlet pipe extending into the interior of the cylindrical screen through the first end of the cylindrical screen to create an annular space between the outer surface of the inlet pipe and the first end of the cylindrical screen;

at least one secondary inlet pipe extending into the interior of the cylindrical screen;

an end plate coupled to the cylindrical screen at the second end of the cylindrical screen and substantially closing the annular space between the outer surface of the inlet pipe and the first end of the cylindrical screen; and

a base plate coupled to the inlet pipe and the cylindrical screen at the first end of the cylindrical screen and substantially closing the annular space between the outer surface of the inlet pipe and the first end of the cylindrical screen.

wherein the inlet pipe defines a first longitudinal central axis and the cylindrical screen defines a second longitudinal central axis and the first longitudinal central axis is spaced apart and parallel to the second longitudinal central axis.

23. (Amended) The submerged intake filter assembly of claim 22, [further comprising a] wherein the at least one secondary inlet pipe comprises a single secondary inlet pipe positioned in the annular space and extending into the interior of the cylindrical screen through the first end of the cylindrical screen.

26. (Amended) The submerged intake filter assembly of claim 22, [further comprising] wherein the at least one secondary inlet pipe comprises a plurality of secondary inlet pipes, each positioned in the annular space and extending into the interior of the cylindrical screen through the first end of the cylindrical screen.

29. (Cancelled) The submerged intake filter assembly of claim 22, wherein the inlet pipe and the cylindrical screen are eccentric at the first end.
30. (Cancelled) The submerged intake filter assembly of claim 29, further comprising a secondary inlet pipe positioned in the annular space and extending into the interior of the cylindrical screen through the first end of the cylindrical screen.
31. (Cancelled) The submerged intake filter assembly of claim 30, wherein the inlet pipe extends further into the interior of the cylindrical screen than does the secondary inlet pipe.
32. (Cancelled) The submerged intake filter assembly of claim 30, wherein the secondary inlet pipe extends into the interior of the cylindrical screen at an angle to the first longitudinal axis.
33. (Cancelled) The submerged intake filter assembly of claim 29, further comprising a plurality of secondary inlet pipes, each positioned in the annular space and extending into the interior of the cylindrical screen through the first end of the cylindrical screen.
34. (Cancelled) The submerged intake filter assembly of claim 33, wherein at least two of the plurality of secondary inlet pipes extend different distances into the interior of the cylindrical screen.
35. (Cancelled) The submerged intake filter assembly of claim 33, wherein the plurality of secondary inlet pipes extend into the interior of the cylindrical screen at an angle to the first longitudinal axis.
43. (Cancelled) The submerged intake filter assembly of claim 36, wherein the secondary flow modifier pipe defines a secondary longitudinal axis that is at an angle to the primary longitudinal axis.

44. (Amended) The submerged intake filter assembly of claim [43] 37, further comprising a second secondary flow modifier pipe positioned in the annular space and extending into the interior of the cylindrical screen, the second secondary flow modifier pipe extending into the screen interior a different distance from the secondary flow modifier pipe.